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REMARKS

Claims 11-19 have been canceled. Accordingly, claims 1-10 remain pending and under consideration in the above-referenced application.

Rejection Under 35 U.S.C. §112

Claim 11 stands rejected under 35 U.S.C. §112, first paragraph, for failing to comply with the written description requirement. The rejection under U.S.C. §112 has been obviated by cancellation of claims 11-19.

Rejection Under 35 U.S.C. §102

Claims 11-13, 15, and 16 stand rejected under 35 U.S.C. §102(b) as being anticipated by Melman et al. (U.S. Patent No. 6,564,018).

This rejection has been obviated by cancellation of claims 11-19.

Claim Rejections Under 35 U.S.C. §103

Claims 1-7, 9, 10, 17 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hsin (U.S. Patent Application Publication No. 2004/0150740) in view of Melman et al.

The rejection states that Hsin teaches an optical sensor assembly comprising an optically transmissive substrate ("transparent layer" 60), and an optical imaging element ("photosensitive chip" 58) electrically coupled to said substrate. According to the Examiner, the "optical imaging element (58) is electrically coupled to said substrate (60) via wires (68) and signal input terminals (64)." The Examiner further states that the Hsin document teaches filter material, but that it "does not explicitly teach that said filter material is included in the optically transmissive substrate." However, according to the Examiner, the Melman et al. reference teaches an optical sensor circuit assembly comprising an optically transmissive substrate and an optical imaging element coupled to the substrate (physically coupled, not electrically coupled). The Examiner has further stated that Melman et al. "teach that the optically transmissive substrate includes filter material (cover glass (106) has an antireflective coating (816) and an optical IR blocking coating (820), see figure 8C, column 6, line 57 through column 7, line 6)."

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The Examiner has taken the position that it would have been obvious to a person of ordinary skill in the art at the time the invention was made “to include filter material as taught by Melman et al. in the optically transmissive substrate taught by Hsin for the benefit of preventing excess ghosting and scattered light as is caused by internal reflections of optically transmissive substrates, reducing the number of pieces of the optical sensor circuit assembly, preventing damage to the filter material due to the cleaning of the separate lens module, and correcting color and/or contrast distortion (Melman et al., column 2, lines 1-24, column 6, line 44 through column 7, line 2).”

The above analysis is in error. The teachings of the prior art have been mischaracterized. Hsin does not disclose an optically transmissive substrate and an optical imaging element that is electrically coupled to the optically transmissive substrate. To the contrary, the passage relied on in the rejection teaches that “photosensitive chip 58 is contained in the cavity 62 and is electrically connected to the signal input terminal 64 of the frame layer 56 through a plurality of wires 68.” Thus, the reference expressly states that the photosensitive chip or optical imaging element 58 is electrically connected to the frame layer 56, not to transparent layer 60. Accordingly, the proposed modification based on the teachings of Melman et al. does not remedy the deficiencies in the teachings of the Hsin publication. For this reason, the rejection is defective and must be withdrawn.

As previously stated, an important and novel feature of the invention which is not anticipated or obvious based on the prior art is the concept of providing an optically transmissive substrate 12 on which conductive leads 15 may be formed to facilitate direct electrical coupling of an optically imaging element 24 to an optically transmissive substrate 12 thereby eliminating the need for a separate cover glass 806 as disclosed by Melman et al. or a transparent layer 60 as disclosed by Hsin.

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CONCLUSION

In view of the above amendments and remarks, is it respectfully submitted the application is in condition for allowance and notice of the same is earnestly solicited.

Respectfully submitted,

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Date

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